

ABSTRACT

In a rotation member (5) rotatably engaged with a housing (3), a pulsing electric discharge is generated in a processing liquid or in a gas, between an electrode and the rotation member (5). The electrode is a chemical compound from metallic powder or metal, or a molded body formed by molding ceramic powder, or a molded body obtained by heating the molded body. Energy of the electric discharges causes coating to be formed on an engagement portion (15) engaging the housing (3), the coating formed from the material of the electrode or a substance to which the electrode material combined by the energy of the electric discharges.